

KINYUKHIN, B.V.; KURZNER, A.B.

Determining the critical size of water droplets and solutions
of surface-active agents when sputtered. Probl. fiz. atm.
no.2:163-171 '63. (MIRA 17:5)

PIRYKHIN, B.V.; MORACHEVSKIY, V.G.; ORLOVA, M.N.

Evaporation rate of droplets of aqueous solutions of surface-active agents. Probl. fiz. atm. no.2:142-150 '63.
(MIRA 17:5)

KIRYUKHIN G. A.

The dangers of fumigating plants after spraying with
Kiryukhin. *Soviet Subtropics* 1938, No. 3, 20-22, 23. *Author*
Editor 40, 405. In regions where rains are scarce,
fumigation with HCN after spraying with Bordeaux must
affect the plants. In such cases there is an increase in
the Cu content of the soil and plants, which reduces the
resistance of the plants to HCN. A. P. C.
Botanical Garden

ASR S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

1938-1939

1938-1939

1938-1939

1938-1939

1938-1939

1938-1939

KIRYUKHIN, G. A.

USSR/General and Special Zoology. Insects. Injurious In- P
sects and Ticks. Pests of Fruit and Berry Crops

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49690

Author : Kiryukhin G.A., Talitskiy V.I.

Inst : -

Title : The Control of Leaf Phylloxera.

Orig Pub : Grodineritul, vioritul shi vineritul Moldovoy,
1957, No 2, 60-62; Sadovodstvo, vinogradarstvo i
vinodoliyo Moldavii, 1957, No 2, 60-62

Abstract : In the regions where the leaf Phylloxera appears
every year it is necessary that the plantings of
the hybrids of the direct generators and the
ovaries of uncultivated vines be treated the first
time (better by dusting) against the larvae -
during the period of bud opening-until the ap-
pearance of 3-4 leaves (before the galls begin to
close); the second time (if the first treatment
was not carried out in time, during the mass

Card : 1/2

KIRYUKHIN, G.A., kand.sel'skokhoz.nauk

Fractional placement of dichloroethanevat residues in soils. Zashch.
rast. ot vred. i bol. 4 no.4:43-44 J1-Ag '59.

(MIRA 16:5)

1. Vsesoyuznaya nauchno-issledovatel'skaya protivofilloksernaya stantsiya.
(Phylloxera-Extermination) (Fumigation)

KIRYUKHIN, G.A.

Some results of testing fumigants. Zashch. rast. ot vred. i bol.
6 no.7:48 J1 '61. (MIRA 16:5)

1. Starshiy toksikolog Vsesoyuznoy protivofilloksernoy stantsii,
Odessa.

(Phylloxera--Extermination) (Insecticides)

KIRYUKHIN, G.A., kand.sel'skokhoz.nauk

Soil fumigants. Zashch. rast. ot vred. i bol. 8 no.7:23-25 J1 '63.
(MIRA 16:9)

KIRYUKHIN I. A.

LOBANOV, P.; BREZHNEV, D.; OL'SHANSKIY, M.; LYSENKO, T.; LISAVENKO, M.;
SINYAGIN, I.; YAKUSHKIN, I.; PREZENT, I.; VARUMTSYAN, I.; KOLESNIKOV,
V.; YEVTUSHENKO, A.; ZASYADNIKOV, T.; ALISOV, M.; UTEKHIN, A.;
GORSHKOV, I.; HELOKHONOV, I.; VIDENIN, K.; KARPOV, G.; CHERMENKO, S.;
BAKHAREV, A.; TIKHONOVA, A.; KUZ'MIN, A.; BUZULIN, G.; TOLMACHEV, I.;
LYSYUK, Ye.; KHARITONOVA, Ye.; KUSHNIRENKO, M.; NOVOPAVLOVSKAYA, N.;
ZHIBONKIN, I.; KATSURA, O.; KIRYUKHIN, I.; NIKITIN, B.; TSVETAYEVA, Z.;
ARKHIPOV, B.; OSTAPENKO, V.; IVANOV, V.; BUTUZOV, V.; LUTKOVA, I.;
TSVETAYEVA, Z.; ARKHIPOV, B.; OSTAPENKO, V.; IVANOV, V.; BUTUZOV, V.;
LUTKOVA, I.

P.N. IAKovlev; obituary. Agrobiologiya no.6:119 N-D '57.

(MIRA 10:12)

(IAkovlev, Pavel Nikanorovich, 1898-1957)

KIRYUKHIN, I.A.

Kernelless seeds in the sunflower. Biol. nauch.-tekhn. inform.
TSOL no.4:3-12 '57. (MIRA 12:1)
(Sunflowers) (Fertilization of plants) (Bees)

KIRYUKHIN, I.A.

Empty husks in the sunflower. Trudy TSGL 7:230-238 '61.

(Sunflowers)

(MIRA 15:10)

KIRYUKHIN, I.F.

Preparation of ultrafilters from cellophane by mechanical stretchings.
Lab. delo no.1:54-56 '64. (MIRA 17:4)

1. Kafedra biokhimii (zaveduyushchiy - prof.G.V.Troitskiy) Krymskogo
meditsinskogo instituta, Simferopol'.

✱

PROLISNY, G.V.; OKOLOV, V.I.; KIRYUKHIN, I.P.

Disulfide framework and conformation of gamma globulin. Biokhimiya
30 no.2:268-276 Apr '65. (MIRA 18:7)

1. kafedra biokhimi Krimskogo meditsinskogo instituta, Simferopol'.

KERYUKHIN, I.F. [Kyriukhin, I.F.]

Methods of low-temperature spectropolarimetry of protein solutions
and the study of rapid conformational changes in molecules. Ukr.
biokhim. zhur. 37 no.4:608-613 '65. (MIRA 18:9)

1. Kafedra biokhimii Krymskogo gosudarstvennogo meditsinskogo
instituta, Simferopol'.

TROITSKIY, G.V. [Troits'kiy, H.V.]; OKULOV, V.I.; KIRYUKHIN, I.F. [Kyriukhin, I.F.]

Study of the denaturation of egg albumin by the method of spectro-
polarimetry in conjunction with other physicochemical methods.
Ukr. biokhim. zhur. 37 no.2:182-193 '65.

(MIRA 18:6)

1. Kafedra biokhimii Krymskogo meditsinskogo instituta, Simferopol'.

21/11/11 11/11/11
KIRYUKHIN, I. I., inzhener; MNYLIKHOV, Z. Ye.

More attention to road maintenance during the crop transport period
Avt.dor.18 no.4:22 J1-Ag'55. (MIRA 8:11)
(Roads--Maintenance and repair)

3(0)

105/138-1-5-11.17

AUTHOR: Kiryukhin, I.I.

TITLE: The Third Plenary Session of the Central Committee of the Trade-Union

PERIODIC 1: Razvedka i okhrana nefti, 1959, No 3, p. 51-52 (10)

ABSTRACT: The third plenary session of the Central Committee of the Trade-Union of Geological Prospecting Workers took place in April, 1959. The chairman of the committee, I.I. Kiryukhin, made a report on the tasks of this trade-union in connection with the decisions of the XII Conference of the CPSU. He stressed that the level of the work of the trade-union is high. He stated that the work of provincial committees of the trade-union improved considerably since the last session of the Central Committee of the Communist Party, the chairman reported the fulfillment of the 1958 plan of geologic prospecting and geophysical operations. He then mentioned the tasks of geologic-prospecting organizations which are entrusted with the obligation to fulfill, in 5 years, the tasks fixed by the CPSU. He then and challenged other organizations to fulfill these tasks.

Card 1/2

007/132-39-5-11/17

The Third Plenary Session of the Central Committee of the Trade-Union

other hand, the president of the Chita Territorial Trade Union Committee, Sokolov, the former president of the Moscow Territorial Labor Union Committee, Il'in, and the president of the Branch Committee of the upravleniye geologii pri Sovete Ministrov Azerbaydzhanskoy SSR (Directorate of Geology with the Ministers Council of the Azerbaijanian SSR), Aliev, and other committees and their presidents are blamed for their lack of energy and poor attempts at meeting the new requirements.

ASSOCIATION: Tsk profsoyuza rabochikh geologorazvedochnykh rabot (The Central Committee of the Trade-Union of Geological Prospecting workers).

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000/100-00-7-17/17

AUTHOR: Kiryukhin, I.I.

TITLE: A Fitting Reward

PERIODICAL: Razvedka i okhrana neдр, 1959, Nr 7, p 64 (USSR)

ABSTRACT: The Presidium of VTsSPS awarded honorary diplomas of VTsSPS for high achievements in the socialist competition to the following teams of geological prospecting workers of the Main Directorate of Geology and Conservation of Mineral Resources at the Council of Ministers of the RSFSR: Seymchanskoye rayonnoye geologorazvedochnoye upravleniye (Seymchanskiy Rayon Geological-Prospecting Directorate); geologicheskoye upravleniye tsentral'nykh rayonov (Geological Directorate of the Central Rayons); Volgo-Donskoye geologicheskoye upravleniye (Volga - Don Geological Directorate); Trest Kuzbassuglegeologiya (Kuzbassuglegeologiya Trust) and the Geological Prospecting Team of the Ministry of Geology and Conservation of Mineral Resources of the USSR. By decision of the

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A Fitting Reward

307/132-59-7-17/17

Central Committee of the Trade-Union of Geological Prospecting Workers and of the Board of the Ministry of Geology and Conservation of Mineral Resources of the USSR, many workers and employees of these organizations received the badge of "Excellent Worker of the Socialist Competition of the Ministry" and the honorary diplomas of the Ministry. For excellent technical achievements in the first quarter of 1959, the challenge red banners of the Council of Ministers and of VTsPS were awarded to the team of workers of the Seymchanskiy Rayon Geological Prospecting Directorate and to one of expeditions of the Ministry of Geology and Conservation of Mineral Resources. The challenge red banners and money rewards for highly productive work during the first quarter of the 1959 were awarded to: the teams of geological-prospecting workers of the Kuzbassuglegeologiya Trust, of the Urup and Altyn-Topkan Geological Expeditions; the Mirgorodskaya kontora razvedochnogo bureniya (the Mirgorod Office of Prospecting Drilling), as well as to 92 drilling and mining brigades. Among these last are: mining brigade

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NOV/1959-59-7-17/17

A Fitting Reward

of the senior foreman T.V. Kravchenko of the Slyudyanka Geological Prospecting Team, drilling brigade of the senior drilling foreman A.P. Kotlyarov (the Tyret'-Ziminskaya Geological Prospecting Team), drilling brigade of the senior drilling foreman I.V. Goret'skiy (the Sorskoye Geological Prospecting Team), drilling brigade of the senior drilling master M.V. Tret'yukhin of the Levoberezhnaya Team, and many others.

ASSOCIATION: TsK profsoyuza rabochikh geologorazvedochnykh rabot (Central Committee of the Trade-Union of Geological-Prospecting Workers)

Card 3/3

KIRYUKHIN, I.I.; KRIVENKO, Ye.S.

Fifth Plenum of the Central Committee of the Trade Union of Prospecting Workers. Razved. i okh. nedr 28 no.2:51-57 F '62. (MIRA 15:3)

1. Tsentral'nyy komitet profsoyuza rabochikh geologorazvedochnykh rabot (for Kiryukhin). 2. Zhurnal "Razvedka i okhrana nedr" (for Krivenko).

(Prospecting) (Trade unions)

KIRYUKHIN, I.I.

In the Presidium of the Central Committee of the Trade Union
of Prospecting Workers. Razved.i okh.nedr. 28 no.11:55-58 N
'62. (MIRA 15:12)

1. TSentral'nyy komitet professional'nogo soyuza rabochikh
geologorazvedochnykh rabot.
(Prospecting) (Trade unions)

KIRYUNIN, I.I.

In the Central Committee of the Trade Union of Workers Employed
in Geological Prospecting. Razved. i okh. zh. 30 no.3:61-63
Mr '64 (CMA 18:1)

1. Tsentral'nyy komitet professional'nogo sojuzn rabochikh
geologorazvedochnykh ralet.

SMIRNOV, A.I.; KIRYUKHIN, I.I.

Voluntary activists' group is the main support of the trade-union committees. Razved. i okh. nedr 30 no.12:50-52 D '64. (MIRA 18:4)

1. Tsentral'nyy komitet professional'nogo soyuza rabochikh geologorazvedochnykh rabot.

KIRYUKHIN, L.G.; KLEYNER, Yu.M.; SLYUSAREV, A.N.

Tectonic structure of the platform mantle of the eastern
part of the northern Kyzylkum syncline. *Biul. MOIP. Otd. geol.*
38 no.6:17-23 N.D '63. (MIRA 17:8)

KIRYUKHIN, L.G.; PLESHCHENYEV, I.S.

Tectonics and the prospects for finding gas and oil in the
Mynsualmas group of structures in the Northern Ustyurt. Geol.
nefti i gaza 8 no.5:17-21 1964. (MIRA 17:9)

1. Aerogeologicheskaya ekspeditsiya No.11 Vsesoyuznogo aerogeolo-
gicheskogo tresta Ministerstva geologii i okhrany zemel SSSR.

KIRYUKHIN, L.G.; PLESHCHEYEV, I.S.

Helvetian sediments in northern Ustyurt. Biol. MDIP. Otd. geol.
39 no.3:57-61 My-Je '64. (MIRA 17:12)

BRONOVY, V.A.; KUTYKHIN, L.G.; NERZIN, A.I.; et al. 1954. 1.3.

Stratigraphy of Oligocene sediments in the northwestern part of
the Chagrayaskoye Plateau. Biol. Zhiv. 1954. 1. 5: 1-10
S-0 '54. (MIRA 12:2)

KIRYUKHIN, L.G.; KLEYNER, Yu.M.; FEDOROVICH, B.A.; KHACHATRIAN, S.G.

Reviews and bibliography. Biol. MOIP. Otd. geol. 39 no.6:
122-126 N-D '64. (MIRA 18:3)

GARETSKIY, R.G.; KIRYUKHIN, L.G.; PLESHCHEYEV, I.S.

Tectonics, and oil and gas potentials of the northern Ustyurt.
Neftegaz. geol. i geofiz. no.4:10-15 '65. (MIRA 18:7)

1. Vsesoyuznyy aerogeologicheskii trest Ministerstva geologii
i okhrany nedr SSSR.

ATKINSON, L.G.

New data on Paleocene sediments in northern Usturt. Sov. geol.
8 no.10:132-139 9 '65. (MIR 18:12)

KIKYUKHIN, L.G.; KRAVCHUK, V.N.; FEDOROV, P.V.

Recent data on the terraces of the Aral Sea. Izv. AN SSSR. Ser.
geog. no. 1:62-72 Ja-F '66 (MIRA 19:2)

1. Vtoraya ekspeditsiya Vsesoyuznogo aerogeologicheskogo tresta
Ministerstva geologii SSSR i Geologicheskii institut AN SSSR.

KIRYUKHIN, M., kand. tekhn. nauk

Reconstruction of the ship of the "40th Anniversary of the October"
Shipyard. Bech. transp. 24 no.4-34-35 '65.

(MIRA 18:5)

KIRYUKHIN, M., kand.tekhn.nauk

Ship lifting on movable ship hoisters. Rech. transp. 20 no. 3:37
Mr '61. (MIRA 14:5)

(Inland navigation) (Hydraulic structures)

KIRYUKHIN, M., kand.tekhn.nauk

How to avoid ship damage during raising on slips. Rech.transp.
22 no.1:45-47 Ja '63. (MIRA 16:2)
(Ships—Maintenance and repair)

MINIUM, I. .

"Calculation of the Strength of the Hull of a Ship during Landing on a Ship." Jena
Tech Sch, Gorkiy Polytechnic Inst, Gorkiy, 1953. Dissertation (Laboratory
Experiment--Modeling) 100 p., Feb 54)

5. : JEN 100, 1, 1954

KIRYUEHIN, M. kand.tekhn.nauk

Ship lifting with two supports. Rech.transp. 19 no.1:46 Ja
'60. (MIRA 13:5)

(Shipyards--Equipment and supplies)

KIRYUKHIN, H.P., kand.tekhn.nauk

Reducing the number of cradles for ship raising on slips. Trudy
GPI 15 no.1:108-127 '61 [i.e. '59]. (MIRA 15:11)
(Shipyards--Equipment and supplies)

KIRYUKHIN, Nikolay Kus'mich; YUKEL'SON, N.Ye., red.; KAYDALOVA, M.D.,
tekh. red.

[Communist Youth Leaguers try to save billions of rubles] Za kom-
somol'skieilliardy! Khabarovsk, Khabarovskoe krizhnoe izd-vo,
1958. 38 p. (MIRA 14:9)

1. Sekretar' Komsomol'skogo-na-Amure gorodskogo komiteta Vsesoyuz-
nogo Leninskogo Kommunisticheskogo soyuza molodezhi (for Kiryukhin).
(Communist Youth League) (Efficiency, Industrial)

KIRYUKHIN, R. A.

KURILENKO, P.P., veterinarnyy vrach.; KIRYUKHIN, R.A., glavnyy veterinarnyy vrach
Chastinskogo rayona, Molotovskoy oblasti.; PRIDAT'KO, I.P., veterinarnyy
fel'dsher.; NEMOLOVSKIY, I.K., veterinarnyy vrach.

Immobilizing swine... Veterinariia 34 no.4:72-74 Ap '57. (MIRA 10:4)

1. Beloglasovskaya rayvetlechebnitsa, Altayskiy kray (for Kurilenko).
2. Kolkhoz imeni Khrushcheva, Selidovskogo rayona, Stalinskoy oblasti
(for Pridat'ko). 3. Kiyevskaya respublikanskaya vetbaklaboratoriya
Ministerstva sel'skogo khozyaystva USSR (for Nemolovskiy)
(Veterinary instruments and apparatus)

GORSHKOV, G.I.; KARAKOV, D.T.; KIRYUKHIN, R.A.

Effect of cobalt chloride on smooth musculature of the intestine.
Farm. toks. 24 no.3:338-342 My-Je '61. (MIRA 15:1)

1. Kafedra farmakologii (zav. - dotsent M.I.Rabinovich) Troitskogo
veterinarnogo instituta.
(INTESTINES) (COBALT CHLORIDES)

L 40178-66 ENT(1)/T JK

ACC NR: AP6029381 (A,N) SOURCE CODE: UR/0346/66/000/006/0030/0031

AUTHOR: Kiryukhin, R. A.; Pasechnikov, L. N. 21

ORG: none

TITLE: Isolation of foot-and-mouth disease virus from air exhaled by sick animals 6

SOURCE: Veterinariya, no. 6, 1966, 30-31

TOPIC TAGS: hoof and mouth disease, virus, disease control

ABSTRACT: Air samples were obtained from sick calves starting 24 hours after the animals' temperature rose. Foot-and-mouth disease virus was found in samples obtained after 24 and 48 hours. But samples obtained 96 hours after the initial clinical manifestation of the disease contained no virus. One liter of air exhaled by an animal 24 and then 48 hours after the temperature rose was found to contain 6.3-200 and 350-630 ID₅₀ of virus, respectively. The authors believe that the air-droplet mode of infection of animals is an important factor in the spread of foot-and-mouth disease. Orig. art. has: 1 table. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: none

Card 1/1/1/1

0917

5624

L 00091-67 EWT(m)/EWP(j) RM
 ACC NR: AF6009264 (A) SOURCE CODE: UR/0324/65/000/005/0034/0040
 AUTHOR: Kiryukhin, S. M.
 ORG: Moscow Textile Institute (Moskovskiy tekstil'nyy institut)
 TITLE: Change in the properties of pure wool fabrics during their wear
 SOURCE: IVUZ. Tekhnologiya tekstil'noy promyshlennosti, no. 5, 1965, 34-40
 TOPIC TAGS: natural fiber, wear resistance, friction coefficient
 ABSTRACT: Experiments were conducted at the Control Test Laboratories of the TsNIIShorsti to determine changes in the properties of pure wool fabrics upon abrasion on the TI-1 apparatus. On each of the five types of fabric examined, the first hundred abrasion cycles, which removed the free fibers from the surface of the cloth, caused a 3-8% loss in its weight. Fabric thickness increased simultaneously by as much as 20% due to new fibers being pulled out of the yarn onto the surface. With further wear this pulling-out process, i.e. fiber removal, decreased; weight loss decreased until near the end of the fabric wear when it rapidly increased. Air permeability of the fabrics decreased at first, then increased. The structure of the fabric is loosened with continued abrasion until it reaches its critical value; the fabric then breaks down. Changes in the coefficients of friction generally agreed with changes in fabric thickness. Work was conducted under the direction of Doctor of

Card 1/2

L 06091-67

ACC NR: AF6009264

Technical Sciences, Prof. A. N. Solov'yev. Orig. art. has: 5 figures, 3 tables and 1 equation.

SUB CODE: 11/ SUBM DATE: 17May65/ ORIG REF: 006/ OTH REF: 007

Card 2/2 JS

L 06091-67 EWT(m)/EWP(j) RM

ACC NR: AF6009264

(A)

SOURCE CODE: UR/0324/65/000/005/003/0040

AUTHOR: Kiryukhin, S. M.

ORG: Moscow Textile Institute (Moskovskiy tekstil'nyy institut)

TITLE: Change in the properties of pure wool fabrics during their wear

SOURCE: IVUZ. Tekhnologiya tekstil'noy promyshlennosti, no. 5, 1965, 34-40

TOPIC TAGS: natural fiber, wear resistance, friction coefficient

ABSTRACT: Experiments were conducted at the Control Test Laboratories of the TsNII Shersti to determine changes in the properties of pure wool fabrics upon abrasion on the TI-1 apparatus. On each of the five types of fabric examined, the first hundred abrasion cycles, which removed the free fibers from the surface of the cloth, caused a 3-8% loss in its weight. Fabric thickness increased simultaneously by as much as 20% due to new fibers being pulled out of the yarn onto the surface. With further wear this pulling-out process, i.e. fiber removal, decreased; weight loss decreased until near the end of the fabric wear when it rapidly increased. Air permeability of the fabrics decreased at first, then increased. The structure of the fabric is loosened with continued abrasion until it reaches its critical value; the fabric then breaks down. Changes in the coefficients of friction generally agreed with changes in fabric thickness. Work was conducted under the direction of Doctor of

Card 1/2

L 06433-67

ACC NR: AP6026710

ly indicates the polarity of the $\langle 11\bar{2} \rangle$ directions. One of the possible causes of this difference is probably the fact that in gallium phosphide the glide takes place on planes of a different type than in alkali halide crystals. The distribution of dislocations around the scratches clearly reflects the polarity of the $\langle 11\bar{2} \rangle$ directions. In conclusion, the authors thank S. L. Pyshkin and Yu. I. Maksimov for providing the gallium phosphide single crystals. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 03Jan66/ ORIG REF: 005/ OTH REF: 001

Card

2/2

KIRYUKHIN, S.M., gornyy inzhener.

Short-delay blasting in pits of the Barsuki Mine Administration.
Gor. zhur. no.4:53-54 Ap '57. (MLRA 10:5)

1. Barsukovskoye rudoupravleniye.
(Barsuki--Strip mining) (Blasting)

AUTHOR: Kiryukhin, S. I. (Engineer). 100-57-12-10/11
 TITLE: Drilling and Blasting at the Barsukovskiye Quarries. (Buro-
 vzryvnyye raboty na Barsukovskikh kar'yerakh).
 PERIODICAL: Mekhanizatsiya Stroitel'stva, 1957, Nr.12.pp.26-27. (USSR)
 ABSTRACT: The Barsukov quarry has an output of 400,000 m³ of lime-
 stone per year. The basic processes of quarrying are
 drilling and blasting. This particular quarry contains
 limestone layers separated by sand and clay deposits.
 According to the scale of Professor Protod'yakonov the
 degree of hardness of the limestone is 5 - 6. The specific
 weight is 25 tons/m³. The working platforms are 12-27 m
 high, averaging 20 - 22m. Transportation of the quarry
 stone is carried out by excavator SE-5 with a capacity
 of 5 m³. The drilling is carried out by the standard
 drilling machine type BU. Until 1955 mass-blasting was
 carried out as follows: Holes were drilled not more than
 5 m apart and up to 4.5 m in width. Ammonite No.8 was
 used for the blasting. Since 1955, however, a new method
 of blasting has been tried out according to the method
 of PEU-trust of Soyuzvzryvprom as follows: the distance
 between the holes is 7 - 9 m and width 4.5 - 5 m, blasted
 by the method of "delayed detonation" (0.035 seconds).

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100-57-12-10/11

Drilling and Blasting at the Barsukovskiye Quarries.

Blasting is carried out by apparatus ZD-54. Table 1 gives comparative results of these two different types of blasting. The delayed detonation method did not prove successful in this particular quarry and the old method was tried again with an increased spacing between the blast holes of 3 m. The results of this changed method are given in Table 2. A comparison of these two tables shows that better results are obtained by the use of the latter method. Holes for blasting large blocks of limestone are made by driller type RP-17. There are 2 Tables.

AVAILABLE: Library of Congress.

1. Quarries 2. Drilling-Processes 3. Blasting-Processes

Card 2/2

KIRYUKHIN, S.M.

Method of "symbol" correlograms for analyzing the nature of the non-uniformity of the products of spinning. Izv.vys.ucheb.zav.; tekhn.tekst. prom. no.3:34-40 '63. (MIRA 16:9)

1. Moskovskiy tekstil'nyy institut.
(Spinning) (Correlation(Statistics))

KIRYUKHIN, S.M.; GUSENKOV, A.M.

Side recovery of refractory clays in Kimovsk open-cut mines.
Ogneupory 27 no.2:72-76 '62. (MIRA 15:3)

1. Podmoskovnyy ugol'nyy institut.
(Moscow Basin--Coal mines and mining) (Fireclay)

SERGEYEV, M.Ye., professor; PALLADOV, S.S., dotsent; NOVODEREZHKIN, P.I., dotsent; KIRYUKHIN, T.F., dotsent; TSEREVITINOV, B.F., dotsent; GURVICH, B.S., Kandidat tekhnicheskikh nauk; ANDRUSEVICH, D.A., st. prepodavatel'; GRANOVSKAYA, I.Ye., redaktor.

[Science of industrial wares] Товароведение промышленных товаров.
Moskva, Gos. izd-vo torgovoi lit-ry. Vol. 2. 1954. 663 p.(MLRA 7:8)
(Manufactures)

KIRYUKHIN, S.M.; LUVISHIS, L.A.

Rapid determination of the dustiness of washed wool.
Standartizatsiia 28 no.3:37-38 M^r'64. (MIRA 17:5)

LYUBICH, M.G., kandidat tekhnicheskikh nauk; MASLOV, I.G., inzhener;
NIKITSKIY, Ye.Kh.; KIRYUKHIN, T.F., kandidat tekhnicheskikh
nauk; ORLOVA, G.A., redaktor; MEDRISH, D.M., tekhnicheskij
redaktor.

[Leather, rubber, and felt footwear] Obuv' koshanaya, rezinovaya
i valianaya. Moskva, Gos.izd-vo torgovoi lit-ry, 1956. 238 p.
(Shoe industry)

KIRYUKHIN, V., inzhener.

Preventing corrosion in water-heating boilers when remodeling them for the natural gas use. Zhil.-kom. khos. 7 no.3:5 '57.
(MLRA 10:4)

1. Stalingradskiy institut inzhenerov gorodskogo khozyaystva.
(Boilers) (Gas--Heating and cooking)
(Corrosion and anticorrosives)

KIRYUKHIN, V., predsedatel' shakhtkoma (g.Syzran', Kuybyshevskoy obl.)

Following workers' suggestions. Sov.profsoiuzy 7 no.10:43
My '59. (MIRA 12:9)
(Syzran'--Industrial hygiene)

KIRYUKHIN, V.

Soviet credits to underdeveloped countries. Vnesh. torg. 29
no.6:15-18 '59. (MIA 12:2)
(Underdeveloped areas) (Russia--Foreign economic relations)

KIRYUKHIN, V.A.

Underground waters in the northern part of the Turgay Gates as a source of agricultural water supply. Izv. vys. ucheb. zav.; geol. i razv. 1 no.12:101-113 D '58. (MIRA 12:12)

1. Leningradskiy gornyy institut.

(Water, Underground) (Water supply, Rural)

KIRYUKHIN, V.A.

Underground water in the northern part of the Turgay Gates.

Zap. IGI 34 no.2:17-39 '58.

(MIRA 12:6)

(Turgay gates--Water, Underground)

KIRYUKHIN, V. A., Candidate Geolog-Mineralog Sci (diss) -- "Underground water of the northern portion of the Turgay Gates". Leningrad, 1959. 17 pp (Min Higher Educ USSR, Leningrad Order of Lenin and Order of Labor Red Banner Mining Inst im G. V. Plekhanov, Chair of Hydrogeology and Engineering Geology), 150 copies (KL, No 24, 1959, 130)

KIRYUKHIN, V.A.

Artesian basins in the south of the Far East. Mat. Kom. po
izuch. podzem. vod. Sib. i Dal' Vost. no.2:213-223 '62.
(MIRA 17:8)

KIRYUKHIN, V.A.

Basic characteristics of the hydrogeology of artesian basins in
the Far East. Zap. LGI 44 no.2:29-45 '62. (MIRA 16:3)
(Soviet Far East—Water, Underground)

KIRYUKHIN, V.A.; AL'BINSKIY, N.V.

Hydrogeology of the middle Amur Basin. Trudy VSEGEI 101: 26- '9
'63. (MIRA 17:9)

KIRYUKHIN, V.D., kand. ekon. nauk

Manual of summer practices in cattle farming ("Stall and field shelter system for keeping cattle in summer combined with a green fodder production plan" by A.I.Tiutiunnikov, V.A.Pilipenko. Reviewed by V.D.Kiriukhin). Zhivotnovodstvo 20 no. 7:88-89 J1 '58.

(MIRA 11:8)

(Pastures and meadows)

KIRYUKHIN, V. D., POZDIKOV, V. N., SHUMILOVSKIY, N. N., YANUSHKOVSKIY, B. A.,
and GUSHCHIN, Yu., V.

"A Unified Device for Automatic Control With the Use of Modulated
Radioactive Radiation"

paper presented at the All-Union Seminar on the Application of
Radioactive Isotopes in Measurements and Instrument Building,
Frunze (Kirgiz SSR), June 1961)

So: Atomnaya Energiya, Vol 11, No 5, Nov 61, pp 463-470

ACC NR: AT6035086

(N)

SOURCE CODE: UR/3095/66/035/000/0055/0061

AUTHORS: Paranichev, L. G.; Kiryukhin, V. G.

ORG: none

TITLE: Some features of water circulation in the tropical zone of the Atlantic Ocean

SOURCE: AN UkrSSR. Morskoy gidrofizicheskiy institut. Trudy, v. 35, 1966.

Gidrofizicheskiye i gidrokhimicheskiye issledovaniya tropicheskoy zony Atlantiki
(Hydrophysical and hydrochemical research in the tropical zone of the Atlantic), 55-61

TOPIC TAGS: ocean current, research ship, ocean property

ABSTRACT: Currents in the tropical zone of the Atlantic Ocean have been studied for several years during voyages of the Russian research ship Mikhail Lomonosov. This work led to discovery and naming of the Lomonosov Current. In 1963, deep eastward currents in the western part of the equatorial belt (related to the Lomonosov Current, and, possibly, continuations of it) were first measured. The present paper discusses these currents on the basis of data accumulated over the past few years. The data show that a vertical circulation of the water mass in the tropical zone takes place in the equatorial plane. The movements involve all water from the surface to a depth of 1500 m and more, most of the water being transferred by deep currents. A subsurface eastward current is observed throughout the entire investigated region. The thickness

Card 1/2

ACC NR: AT6035086

of the water layer in this current ranges from 100--500 m. The Lomonosov counter-current is the central component in the system of eastern transfer of water masses. The authors state that there are strong deep eastward currents with velocities of several tens of centimeters per second within the entire width of the tropical belt of the Atlantic Ocean. Orig. art. has: - 2 figures and 1 table.

SUB CODE: 08/.

SUBM DATE: none/

ORIG REF: 003/

OTH REF: 002

Card 2/2

CHERNYSHEV, M.P.; ROZHKOV, L.P.; SHUL'GINA, Ye.F.; IGNATOVICH, A.P.;
LABUNSKAYA, L.S.; FOMINA, T.V.; CHERNYAKOVA, A.P.; SHPAKOVA,
L.N.; TARASOVA, M.K.; ANFILATOVA, A.I.; SLAVIN, L.B.;
BARYSHEVSKAYA, G.I.; DERIGLAZOVA, N.V.; MATUSHEVSKIY, G.V.;
AL'TMAN, E.N.; KROPACHEV, L.N.; CHEREDILOV, B.F.; POTAPOV,
A.T.; DUDCHIK, M.K.; REGENTOVSKIY, V.S.; YERMAKOVA, L.F.;
SEменова, Ye.A.; KULIKOVSKIY, I.I.; KIRYUKHIN, V.G.; AKSENOV,
A.A., red.; NEDOSHIVINA, T.G., red.; SERGEYEV, A.N., tekhn.
red.; BRAYNINA, M.I., tekhn. red.

[Hydrometeorological handbook of the Sea of Azov] Gidrometeoro-
logicheskii spravochnik Azovskogo moria. Pod red. A.A.Aksenova.
Leningrad, Gidrometeoizdat, 1962. 855 p. (MIRA 16:7)

1. Gidrometeorologicheskaya observatoriya Chernogo i Azovskogo
morey.

(Azov, Sea of--Hydrometeorology)

SHCHEKOLDIN, A.V., inzh.; KIRYUKHIN, V.I.

Speed controlling stages of low- and medium-powered turbines.
Teploenergetika 8 no.3:36-40 Mr. '61. (MIRA 14:9)

1. Kaluzhskiy turbinnyy zavod.
(Steam turbines)

88234

26.2/20

S/096/61/000/003/004/012
E194/E155

AUTHORS: Shchekoldin, A.V., Engineer, and
Kiryukhin, V.I., Engineer

TITLE: Regulating Velocity Stages of Low- and Medium-Output
Turbines

PERIODICAL: Teploenergetika, 1961, No. 3, pp. 36-40

TEXT: Modern steam turbines of low and medium output usually have a double-row regulating velocity stage. Accordingly since 1953 the Kaluga Turbine Works, in collaboration with the Moscow Power Institute, have studied the flow paths of velocity regulating stages from subsonic to high supersonic heat-drops on the stage and with steam flow rates of 0.015 to 3.0 m³/sec. As a result of this work the Institute developed a range of blade shapes which were described in an article by Deych and Samoylovich in a book published in 1959. In addition to the Institute's guide vanes for sonic and supersonic rates of flow with cylindrical and meridional profiling, the Kaluga Turbine Works proposed and developed axially symmetrical space-orientated blading for supersonic speeds. The tests that were made formed

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S/096/61/000/003/004/012
E194/E155

Regulating Velocity Stages of Low- and Medium-Output Turbines

the basis for the design of double-row regulating stages. The tests were on models made in the same way as regular production blades and nearly full-sized. The investigations led to the development of a number of high-efficiency double-row regulating stages and provided experimental data about the influence on the stage efficiency of a number of design features and various operating conditions. The work described in the present article is only the first stage of the work carried out in the Kaluga Turbine Works to improve the stages of steam turbines. The stages were assessed in terms of the internal relative efficiency calculated from the power developed on the stage rim, frictional losses of the disc being excluded by the special method of calculation. A sectional diagram of the flow path of the stages tested is given in Fig.1. Information is tabulated about the geometry and profiles of six different stages, the first three of which have nozzles with contracting ducts and are designed to operate with sonic rates of outlet from the nozzles. The other three stages have drilled nozzles which are axially symmetrical

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S/096/61/000/003/004/012
E194/E155

Regulating Velocity Stages of Low- and Medium-Output Turbines

and are intended for operation with a Mach number greater than 1.5. Special features of the various stages are described and the results obtained with them are discussed. The influence of the degree of reaction at the rim is also discussed and some features of the use of pressure equalising holes in the disc are mentioned. If the total stage reaction is excessive there can be an appreciable drop in efficiency because of increased losses by leakage at the root section of the first gap. Analysis of the experimental data on the reaction of a number of double-row stages shows that under designed operating conditions of the nozzles the Mach number does not greatly affect the area ratio necessary for normal reaction. However, as the Mach number is increased it is necessary somewhat to increase the relative areas of the guide vanes and of the second row of runner blades, particularly when the Mach number is high. Data is given which shows that the internal efficiency of the Kaluga Turbine Works stages is very high, up to 72%, and appreciably higher than that of other blading

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S/096/61/000/003/004/012
E194/E155

Regulating Velocity Stages of Low- and Medium-Output Turbines
which is named. It is recommended that these stages should be
used for a wide range of conditions.
There are 4 figures, 1 table and 4 Soviet references.

ASSOCIATION: Kaluzhskiy turbinnyy zavod
(Kaluga Turbine Works)

Card 4/5

88234

S/096/61/000/003/004/012

E194/E155

Regulating Velocity Stages of Low- and Medium-Output Turbines

Fig.1

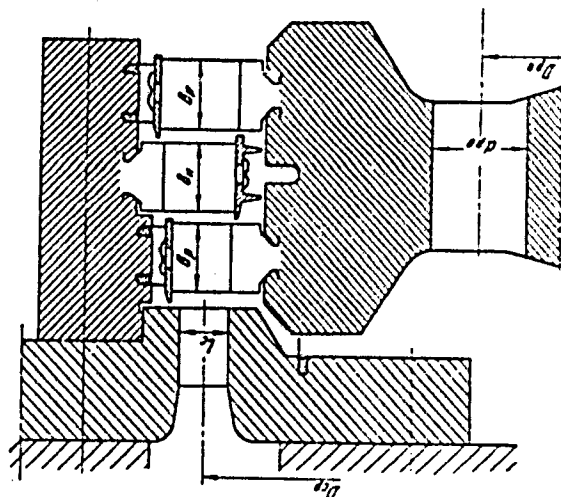


Рис. 1. Схема проточной части регулируемых ступеней.
Примечания. 1. Зазоры по углеугольным усикам равны 0,5—1,0 мм.
2. Величина перекрытия в корнях и периферийных сечениях соответственно равна 0,5—1,5 мм и 1,5—2,5 мм.

Card 5/5

OTROSHCHENKO, O.S.; SADYKOV, A.S.; KIRYUKHIN, V.K.

Bromination of anabasine. Nauch.trudy TashGU no.263.Khim.nauki
no.13:24-26 '64. (MIRA 18:8)

L 37230-66 ENT(m)/ENP(j) JY/RM

ACC NR: AP6015389

(A)

SOURCE CODE: UR/0409/65/000/003/0370/0373

AUTHOR: Kiryukhin, V. K.; Otroshchenko, V. S.; Sadykov, A. S.

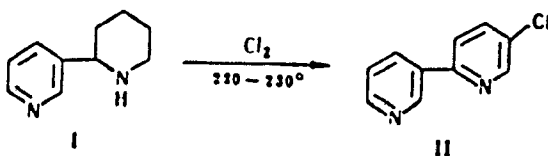
ORG: Tashkent State University im. V. I. Lenin (Tashkentskiy gosudarstvennyy universitet)

TITLE: Syntheses based on anabasine.¹ Part 20: Chlorination of anabasine

SOURCE: Khimiya geterotsiklicheskiy sovedineniy, no. 3, 1965, 370-373

TOPIC TAGS: organic nitrogen compound, organic phosphorus compound, alkaloid, chlorination, anabasine

ABSTRACT: Anabasine was chlorinated at 220-230°C, and a study of the IR and UV spectra of the product led to the assumption that the chlorination product is 5-chloro-2,3'-bipyridyl (II):



The structure of the product was confirmed by a series of reactions in which phenol¹

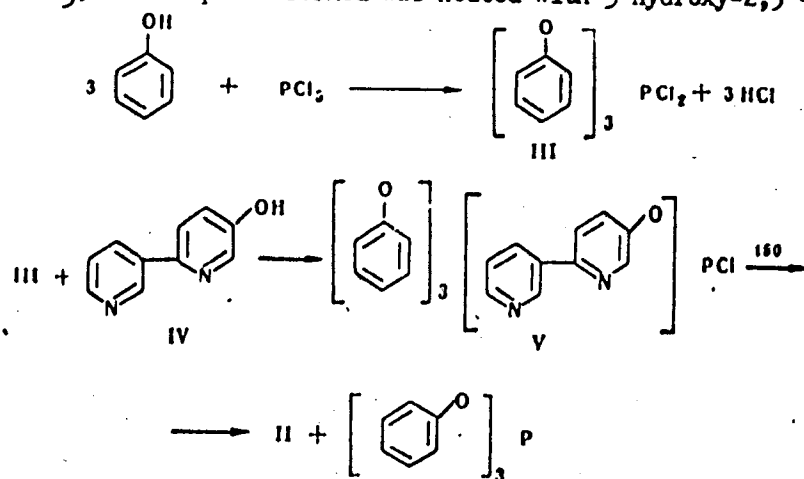
UDC: 547.828+543.422+542.95

Card 1/2

L 37230-66

ACC NR: AP6015389

was reacted with PCl_5 , the compound formed was heated with 5-hydroxy-2,3'-bipyridyl,



and heating of V to 150° produced bipyridyl II, as indicated by UV and IR spectra. The chlorination of piperidine was carried out under similar conditions, and 3-chloropyridine was obtained. Orig. art. has: 2 figures.

SUB CODE: 07/ SUBM DATE: 24Mar64/ ORIG REF: 005/ OTH REF: 003

Cord 2/2/1968

KIRYUKHIN, V.P.

Effect of stimulating chemicals on the spouting and yield of
potatoes. Fisiol.rast. 8 no.3:299-303 '61. (MIRA 14:5)

1. Nauchno-issledovatel'skiy institut kartofel'nogo khozyaystva,
Malakhovka, Moskovskoy oblasti.
(Growth promoting substances) (Potatoes)

GRECHUSHNIKOV, A.I.; KIRYUKHIN, V.F.

Uptake and distribution of labeled phosphorus in the potato plant
under conditions of foliar feeding. Dokl. AN SSSR 142 no.3:719-
722 Ja '62. (MIRA 15:1)

1. Predstavleno akademikom N.V.TSitsinym.
(Plants, Effect of phosphorus on) (Potatoes)

KIRYUKHIN, V.P.

Experiments on the foliar feeding of plants. Biol. v shkole
no.1:47-49 Ja-F '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut kartofel'nogo khozyaystva,
Moskovskaya oblast'.
(Plants—Nutrition)

KIRYUKHIN, V.P.

"The Influence of Spray Nutrition on the Productivity of the Plants
and the Quality of the Harvest of Potatoes";

dissertation for the degree of Candidate of Agricultural Sciences
(awarded by the Timiryazev Agricultural Academy, 1962)

(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2,
1963, pp 232-236)

SEREBRENNIKOV, V.S.; KIRYUKHIN, V.P.

Effect of the irradiation of tubers by cobalt 60 gamma rays
before planting on the productivity of potato plants. Dokl.
Akad. sel'khoz. nauk no.10:7-11 O '65.

(MIRA 18:12)

1. Nauchno-issledovatel'skiy institut kartofel'nogo
khozyaystva.

L 218Cl-66 EWT(m)/EWP(t) IJP(c) JD/JG
ACC NR: AP6012189

SOURCE CODE: UR/0386/66/003/008/0329/0333

AUTHOR: Belov, K. P.; Kiryukhin, V. P.; Sokolov, V. I.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Effect of small terbium impurities on the magnetostriction of yttrium iron garnet

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 8, 1966, 329-333

TOPIC TAGS: ~~ferromagnetic~~, yttrium compound, garnet, magnetostriction, temperature dependence, saturation magnetization, terbium, polycrystal

ABSTRACT: The authors have measured the saturation magnetostriction of a polycrystalline yttrium iron garnet (YIG) sample made from the purest yttrium oxide at room temperature and found it to be negative and equal to -2.16×10^{-8} , in good agreement with the published data. A plot of the longitudinal saturation magnetostriction of YIG at room temperature vs. the degree of purity of the initial yttrium oxide shows that the negative magnetostriction of YIG decreases rapidly with decreasing purity of the initial yttrium oxide. A check was made on the hypothesis that the greatest effect on the magnitude of the YIG magnetostriction is exerted

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L 21804-66
ACC NR: AP6012189

by a terbium impurity, which follows from the fact that terbium iron garnet has at room temperature a positive magnetostriction according to their earlier measurements (ZhETF v. 48, 979, 1965) and hence increases sharply with decreasing temperature. Plots of the temperature dependences of the magnetostriction and saturation magnetization for two YIG samples of different degree of purity (99.940% and 99.996%) show that the magnetostriction becomes positive with decreasing temperature, and that the positive component of the magnetostriction exerts the greatest influence at low temperatures. Even the most insignificant terbium impurities cause not only a decrease in the magnetostriction at 300K, but also a reversal of the sign of the magnetostriction in the region of helium temperatures. On the other hand, no anomalies were observed on the temperature dependence obtained for the saturation magnetization of the same samples. This absence of correlation between the magnetization and magnetostriction of yttrium iron garnet containing a rare-earth impurity is apparently due to the fact that at low temperatures the decisive role is played by the magnetoelastic energy, causing the change in the coupling between the orbital momentum of the rare-earth ion and the intracrystalline field of the iron garnet. The detailed character of this mechanism is still unclear. It is concluded that the temperature dependence of the magnetostriction constant of YIG can serve as a qualitative indicator of the degree of purity of the

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ACC NR: AP6012189

investigated sample (or of the oxide from which it is made), the sensitivity of the magnetostriction to the terbium impurity being apparently much higher than that of the existing methods for spectral analysis of rare-earth oxides. Spectral analysis (sensitivity 0.002%) showed no terbium-oxide impurities of the purest yttrium oxide (99.996%) from which one of the samples was made, yet their presence is clearly disclosed by the anomalous variation of the temperature dependence of the YIG saturation magnetization. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 03Mar66/ ORIG REF: 001/ OTH REF: 004

Card 3/3

PB

L 05775-6/ EWT(d)/EWT(1)/EWT(m)/EWP(1)/ET1 1JP(2) JD/WW/JG

ACC NR: AP6031436

SOURCE CODE: UR/0056/66/051/002/0428/0430

AUTHOR: Kiryukhin, V. P. ; Sokolov, V. I.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Magnetostriction of yttrium-terbium ferrite garnets at low temperatures

SOURCE: Zh eksper i teor fiz, v. 51, no. 2, 1966, 428-430

TOPIC TAGS: ferrite, garnet, yttrium, terbium, magnetostriction, magnetization, Neel ferromagnetic material, ferromagnetic material

ABSTRACT: The magnetic and magnetostrictive properties of polycrystalline ferrite-garnets $Tb_xY_{3-x}Fe_5O_2$ (x varied from 0 to 3) has been investigated over the temperature range 4.2 to 100K. A sharp increase of magnetostriction is detected with the increase of the Tb^{3+} ion concentration. No apparent correlation between the temperature dependences of magnetostriction and magnetization has been found for samples with a high terbium content ($x > 1$). The results obtained do not conform to the single ion model for magnetoelastic interaction of Neel ferromagnetics. The authors thank Professor K. P. Belov for guiding the study and R. Z. Levitin for taking part in discussions of results. Orig. art. has: 2 figures. [Based on authors' abstract]

Card 1/1 SUB CODE: 20/SUBM DATE: 25Mar66/ORIG REF: 001/OTH REF: 003/

LYUDOGOVSKAYA, L.A.; TSVETKOV, V.S.; KIRYUKHIN, V.P.

Antigen structure of tumors in man. Report No.3: Comparative analysis of stomach cancer tissue. Vop. onk. 10 no.3:18-22 '64.

(MIRA 17:8)

1. Iz otdela immunologii i onkologii (zav. - prof. L.A. Zil'ber) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei (dir. - prof. P.A. Vershilova) i patologoanatomicheskogo otdela (zav. - S.V. Kagramanov) 62-y Gorodskoy bol'nitsy (glavnyy vrach - V.D. Margolin). Adres avtorov: Moskva, D-182, Malaya Shchukinskaya 13, Institut epidemiologii i mikrobiologii imeni Gamalei, otdel immunologii i onkologii.

GRECHUSHNIKOV, A.I.; KIRYUKHIN, V.P.; SEREBRENNIKOV, V.S.; TEKTONIDI, I.P.

Some physiological and biochemical changes in potatoes produced by treating the tubers with gibberellin. Fiziol. rast. 11 no.4: 620-629 J1-Ag '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy institut kartofel'nogo khozyaystva, Malakhovka Moskovskoy oblasti.

POLONSKIY, G.M., kand. med. nauk; FUTORYAN, Ye.S.; SHUBIN, B.M.;
KIRYUKHIN, V.P.

Two cases of cancer of the extrahepatic bile ducts. Khirurgiia
41 no.4:133-134 Ap '65. (MIRA 18:5)

1. 1-ye khirurgicheskoye otdeleniye Gorodskoy bol'nitsy No.62
(glavnyy khirurg - kand. med. nauk G.M. Polonskiy), Krasnogorsk.

AUTHOR: Kiryukhin, V.S., Engineer 91-58-5-13/35
TITLE: Repair Chamber for the Washing and Blowing of Electric
Motor Windings (Remontnaya kamera dlya promyvki i produvki
obmotok elektrodvigateley)
PERIODICAL: Energetik, 1958, Nr 5, pp 17-18 (USSR)
ABSTRACT: The windings of electric motors are usually washed by gaso-
line, blown by compressed air (which has been cleaned in
filters), and then sprayed with varnish. During this work,
the air is polluted by gasoline and varnish vapors and
copper-graphite dust. In order to improve working con-
ditions, a special chamber, 3 x 2.85 x 2 m is proposed.
The electric equipment enters on a narrow gage track.
Fresh air is piped-in (see Figure) to the place where the
worker stands. The polluted air is sucked off. This
chamber has been operating in the electric repair work-
shop of a Soviet plant for several years.
There is 1 figure.
AVAILABLE: Library of Congress
Card 1/1 1. Electric motors - Maintenance

SVETLOPOLYANSKIY, V.I., inzh. (Volgograd); KIRYUKHIN, V.S., inzh.
(Volgograd); KIRYUKHINA, V.V., inzh. (Volgograd)

Oxygen cutting of metals using natural gas. Zhil.-kom.
khodz. 12 no.1:25-26 Ja '62. (MIRA 15:6)
(Metal cutting) (Gas, Natural)

L 3997-66 EWT(1)/EWA(h)
ACCESSION NR: AR5014335

UR/0274/65/000/004/A024/A024
621.396.6.019.3

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz'. Svodnyy tom, Abs. 4A161

AUTHOR: Kiryukhin, V. V.

TITLE: Calculation of reliability of multicomponent systems

CITED SOURCE: Tr. Sibirsk. fiz.-tekhn. in-ta pri Tomskom un-te, vyp. 44, 1964, 153-159

TOPIC TAGS: reliability, system reliability, reliability theory

TRANSLATION: Optimal reserving is a reserving of some elements of the system in such a way that the system reliability is maximum for its limited weight (cost, size, etc.). This solution is suggested: A limit is imposed on the weights of reserve elements $w_i = w$. It is assumed that each element can be reserved by $x_j - 1$ elements having reliability p_{ij} ($i=1, 2, \dots, x_j - 1$). The reserve elements can be ordered in such a way that for each of them j , this condition $p_{ij} > p_{i+1, j}$ ($i=1, 2, \dots, x_j - 1$), will be met, i. e., the reliability of each reserve element does not exceed the reliability of each preceding element. Then, the

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ACCESSION NR: AR5014335

overall reliability of the system will be given by:

$$p = \prod_{j=1}^n \left(1 - \prod_{i=1}^{x_j} (1 - p_{ij}) \right) \quad (2)$$

The problem is to select the numbers x_j in such a way that p reach maximum under the condition that the total weight w_{tot} of the system does not exceed the specified weight:

$$\sum_{j=1}^n \sum_{i=1}^{x_j} w_{ij} = \sum_{j=1}^n x_j < w_{\text{tot}} \quad (3a)$$

or, denoting, $K = \frac{w_{\text{tot}}}{w}$ we will have: $\sum_{j=1}^n x_j < K \quad (3b)$. The maximization of (2) under

the condition (3b) is a problem of integer nonlinear programming with a linear boundary condition. In this connection, a theorem is proven which, for the purposes of optimal reserving, substantiates an optimal multistep procedure of reliability calculations. Bibl. 4.

SUB CODE: DP, IB

ENCL: 00

Cord *3/2*

KIRYUKHIN, V.V.

Optimal communication structures in information systems. Probl. pered.
inform. 1 no.2:95-100 '65. (MIRA 18:7)

L 14070-66 EWT(d)
ACQ NR: AP6002404 (A) SOURCE CODE: UR/0103/85/036/012/2214/2220

AUTHOR: Kiryukhin, V. V. (Tomsk)

ORG: None

TITLE: The problem of optimization of structure of telecommunication networks

SOURCE: Avtomatika i telemekhanika, v. 26, no. 12, 1965, 2214-2220

TOPIC TAGS: telecommunication, communication network, cost estimate

ABSTRACT: The problem of the line distribution of channels for the radial structure of communications was investigated elsewhere by A. K. Kel'mans (O nekotorykh optimal'nykh zadachakh teorii nadezhnosti informatsionnykh setey. Avtomatika i telemekhanika, v. 25, no. 5, 1964). It was assumed that the reserve channels have sufficiently high reliability. In order to exclude some of the undesirable effects brought about by the limitations imposed by the assumption, it is, apparently, necessary in the statement of the problem to introduce conditions of the nonnegative variables. The present article attempts to solve problems I and II in the Kel'mans work for the case of the radial structure, as formulated in the present article and taking the nonnegative condition into account. Problem I is formulated as follows: find the number set

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UDC: 621.391.18

L 14070-66

ACC NR: AP6002404

$\{k_i\}$ ($i = 1, \dots, n$), which minimizes the loss function

$$\mathcal{N} = \sum_{i=1}^n \mu_i q_i$$

with the condition

$$\sum_{i=1}^n c_i k_i \leq C$$

where μ_i is the derivative of the i -th point; q_i and c_i are the probability of failure and the cost per channel in the i -th line, respectively; k_i is the number of such channels; and C is the total sum of funds for the construction of the communications system. Problem II consists in the need to minimize the cost of the system

$$C = \sum_{i=1}^n c_i k_i$$

Card 2/3

L 14070-66

ACC NR: AP6002404

with the condition that the total losses in the system do not exceed the given quantity \mathcal{L} .

$$\sum_{i=1}^n \lambda_i \leq \pi.$$

Orig. art. has: 47 formulas.

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